

WHAT IS CLAIMED IS

1. An external antenna which performs transmission/receiving with a non-contact type memory diagonally placed within a case in such a manner that a loop antenna of the non-contact type memory is in adjacent to neighboring two surfaces of the case, the external antenna comprising a loop antenna having a route in adjacent to said two surfaces.
2. The external antenna according to Claim 1, wherein said external antenna possesses tips portion in adjacent to neighboring two surfaces of the case.
3. The external antenna according to Claim 1, wherein the antenna in adjacent to said two surfaces is a part of substantially L-shaped loop antenna..
4. The external antenna according to Claim 1, wherein three portions of the loop antenna of the non-contact type memory are provided so as to be in adjacent to three surfaces of the case, and one portion of the L-shaped loop antenna is in a substantially straight shape to be in adjacent to these three surface
5. The external antenna according to Claim 3, wherein said route comprises tips of the L-shape.

6. The external antenna according to Claim 3, which is produced by deforming one loop antenna into an L-shape.

5 7. The external antenna according to Claim 1, which is largely formed so that the tip portions of said external antenna are far from each other.

8. A communication process for communicating an
10 external antenna with a non-contact type memory diagonally placed within a case in such a manner that a loop antenna is in adjacent to neighboring two surfaces of the case, wherein data communication is performed by placing the external antenna so that the two portions of the antenna are in adjacent to these
15 two surfaces at the time of communication.